Application No. 10/801,815
Reply to Office Action 19, 2006

IN THE CLAIMS

Please amend the claims as follows:

Claim 1 (currently amended): A method for controlling an electronically controlled thermostat comprising:

providing an actuator configured to vary a valve-opening ratio so as to control a temperature of cooling-water to an internal combustion engine and an engine control unit configured to compute a target temperature based on engine parameters and to distribute a power to the actuator;

monitoring <u>only</u> an actual temperature of the cooling water flowing out from a cooling water outlet of the internal combustion engine;

determining an amount of the power to be distributed to the actuator based on [[only]] the actual temperature of the cooling water; and

distributing the amount of the power required to operate the actuator such that the temperature of the cooling water reaches the target temperature.

wherein said determining comprises reading a difference in a variation of the actual temperature of the cooling water per unit time and predicting the variation of the actual temperature of the cooling water in accordance with the difference.

Claim 2 (canceled)

Claim 3 (currently amended): The method for controlling an electronically controlled thermostat according to claim 1 [[or 2]], wherein the providing further comprises providing a cooling fan disposed opposite a radiator for radiating heat of the cooling water, and a rotational speed of the cooling fan is controlled so that a difference between the actual temperature of the cooling water and a temperature of the cooling water when the valve is fully open by the amount of the power distributed to the actuator or a temperature of the

cooling water when the valve is fully open in a state where the amount of the power distributed to the actuator is cut to zero.

Claim 4 (previously presented): The method for controlling an electronically controlled thermostat according to claim 1, wherein the actuator comprises a temperature sensor and a heater element installed in the temperature sensor.

Claim 5 (currently amended): The method for controlling an electronically controlled thermostat according to claim 1 [[or 2]], wherein the actuator comprises a valve and an electric motor configured to drive the valve to open/closed state.

Claim 6 (currently amended): A method for controlling a temperature of cooling water of an internal combustion engine, comprising:

providing an actuator configured to adjust an amount of the cooling water flowing to the internal combustion engine;

monitoring <u>only</u> the temperature of the cooling water flowing out from a cooling water outlet of the internal combustion engine;

computing a target temperature based on engine parameters; and controlling the actuator according to [[only]] the monitored temperature so that the temperature of the cooling water approaches the target temperature,

wherein said controlling comprises reading a difference in a variation of the temperature of the cooling water per unit time and predicting the variation of the temperature of the cooling water in accordance with the difference.

Claim 7 (canceled)

Claim 8 (previously presented): The method for controlling an electronically controlled thermostat according to claim 3, wherein the actuator comprises a temperature sensor and a heater element installed in the temperature sensor.

Claim 9 (canceled)

Claim 10 (previously presented): The method for controlling a temperature of cooling water of an internal combustion engine according to claim 6, wherein the actuator comprises a temperature sensor and a heater element installed in the temperature sensor.

Claim 11 (currently amended): The method for controlling a temperature of cooling water of an internal combustion engine according to claim 6 [[or 9]], wherein the actuator comprises a valve and an electric motor configured to drive the valve to open/closed state.

Claim 12 (new): The method for controlling an electronically controlled thermostat according to claim 1, wherein said difference comprises a variation amount of water temperature gradient, said amount of power comprises a power distribution time, and said determining comprises determining a positive or negative value of the variation amount and the power distribution time based on a size of the variation amount.

Claim 13 (new): The method for controlling a temperature of cooling water of an internal combustion engine according to claim 6, wherein said difference comprises a variation amount of water temperature gradient, said amount of power comprises a power distribution time, and said determining comprises determining a positive or negative value of the variation amount and the power distribution time based on a size of the variation amount.